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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/447,490 11/23/99 ECKARDT

R 0691-018A/GP

HM12/0517
SCHWEITZER CORNMAN GROSS & BONDELL LLP
230 PARK AVENUE
SUITE 2200
NEW YORK NY 10169

EXAMINER

MCKENZIE, T

ART UNIT

PAPER NUMBER

1624

DATE MAILED:

05/17/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action

Application No.

09/447,490

Examiner

Thomas McKenzie Ph. D.

Applicant(s)

ECKARDT ET AL.

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 March 2000 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either a timely filed amendment which places the application in condition for allowance or a Notice of Appeal. Alternatively, applicant may obtain further examination by timely filing a request for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d).

PERIOD FOR REPLY [check only a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 707.07 (f)), the period for reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136 (a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked.

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees.
3. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search. (see NOTE below);
 - (b) ☐ they raise the issue of new matter. (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.
- NOTE: _____
4. ☐ Applicant's reply has overcome the following rejection(s): _____.
5. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
6. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
7. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
8. ☐ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):
- Claim(s) allowed: _____.
 - Claim(s) objected to: _____.
 - Claim(s) rejected: _____.
 - Claim(s) withdrawn from consideration: _____.
9. ☐ The proposed drawing correction filed on _____ a) ☐ has b) ☐ has not been approved by the Examiner.
10. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
11. ☒ Other: Please note attached PTO-892

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Advisory Action

1. This response is prompted by attorney's reply of 3/20/00. It is supplemental to an advisory action mailed on 5/10/00. There are seven claims pending, claims 2-8, all directed to a process for making imipramine using acetic acid.
2. The amendment filed 3/20/00 under 37 CFR 1.116 in reply to the final rejection has been entered, but is not deemed to place the application in condition for allowance. For purposes of appeal, the status of the claims is as follows:

Allowed claim(s): none

Rejected claim(s): 2-8

Claim(s) objected to: none

Response to Arguments

3. See 37 CFR 1.193(a)(2) which provides for the inclusion of the proposed rejection(s) detailed below in the Examiner's Answer if applicant elects to file an appeal to the Board of Patent Appeals and Interferences in this proceeding. To be complete, such rejection(s) must be addressed in any brief on appeal. Upon appeal and entry of the amendment: claims 2-8 would be rejected for the reasons set forth in paragraphs 4, 6, and 7 of the final Office Action mailed 3/1/00.
4. Attorney in his reply of 3/20/00 has made six points. His points are:

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- a) The presently claimed mixture of acetic acid, alcohol, and water is not new matter
- b) Applicants claim a single step process, Acklin teaches a two step process
- c) The translation of Acklin is inaccurate
- d) Claim 14 of Acklin is a dependant claim that only reads on preformed cyanic acid
- e) Only acids as strong as or stronger than formic acid are taught by Acklin as required for the claimed process
- f) In examples 9 and 10 of Acklin, preformed cyanic acid is used

Response to Argument

- a) This point was addressed in the 5/10/00 advisory action and attorney's argument held to be unpersuasive.
- b) This issue was discussed in point 13 of paper 3.
- c) There are occasional typos in the translation (PTO 95-4841, prepared July 1995) of Acklin. There are differences between Acklin (EP 277,095) and the US "equivalent" of this reference, US Patent 4,847,374. Examiner has relied upon his reading of the German language original, not the US Patent, and has cited this original in his rejection. A new translation of Acklin has been ordered.

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d) Claim 14 of Acklin, which specifically claims acetic acid, depends on claims 2, 3, 4, and 8. Claim 2 specifies that the reaction be carried out in an organic solvent and in the presence of an acidic agent. Thus, the chain relied upon is claim 14, dependant on claim 2, in turn dependant upon claim 1. Claim 1 simply has cyanic acid, without reference to its' source. Claim 2 has the additional limitation of an organic solvent and an acidic agent. Claim 14, in the correct translation of "saures Mittel" as "acidic agent", says that acetic acid plays both roles. Therefore, claim 14 is a process claim with cyanic acid, the substrate amine, acetic acid, and nothing more. Claim 1 has no limitation in any regard as from where the cyanic acid comes. It is not limited to "monomeric HNCO" as attorney states. It is just cyanic acid arising from any source. In particular it can come from an alkali cyanate salt because that is what the reference teaches. In lines 39-54 of column 2, Acklin discusses the acids required to "push cyanic acid from their salts." "Cyansaure aus ihren Salzen zu verdrängen." In lines 27-41 of column 3, Acklin discusses suitable acidic media and specifically mentions acetic acid "Essigsäure" in line 31. Thus, cyanic acid from the salt plus acetic acid is explicitly set forth and claim 1 would be understood to contain this. Therefore, all elements of applicants' claimed process are present in Acklin.

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e) The reaction between a weak acid like formic acid and the salt of a weak acid like cyanic acid can be written as:



The law of mass action in chemistry requires that the equilibrium constant for the reaction between a weak acid and the salt of a second weak acid be the ratio of the dissociation constant of the weak acid (k_a) and the second weak acid ($k_{a'}$). The values given in pages 1753-1754 of the "Handbook of Chemistry and Physics 42nd Edition" and on page 344 of "Gmelins Handbuch der anorganischen Chemie, Kohlenstoff, Tiel D1" for these constants are acetic acid = 1.76×10^{-5} , formic acid = 1.77×10^{-4} , and cyanic acid = 2.0×10^{-4} . Using these numbers, the calculated equilibrium constants are 8.8×10^{-2} for acetic acid and 8.8×10^{-1} for formic acid. In acetic acid, a cyanate salt will be 8% converted to cyanic acid. In formic acid, a

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cyanate salt will be 47% converted to cyanic acid. Thus, both acids are sufficiently strong to form enough cyanic acid *in situ* but neither completely converts a cyanate to cyanic acid.

Since all cyanic acid is irreversibly consumed in a reaction with the substrate amine, any acid capable of liberating cyanic acid from its alkali salt will do the job. The first reaction pictured above is a proton transfer process and therefore the rate expected to be diffusion limited. Cyanic acid consumed in reaction with substrate will be quickly replenished until the alkali cyanate is exhausted. Acklin does not say that acids weaker than formic acid can not be used. In addition, claim 14 specifically describes acetic acid as a suitable acetic agent notwithstanding earlier comments about formic acid.

f) Examples 9 and 10 of Acklin do employ externally generated cyanic acid. Applicants generate it *in situ*. These examples are not relied upon but rather is claim 14.

Res Judicata

5. Applicants Eckardt and Jansch argued before the Board of Patent Appeals and Interferences that the Acklin reference did not make obvious their claims. The current independent claim 8 differs from claim 1 in 08/275,025 by inserting the

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phrase "an acidic medium consisting of" before acetic acid, adding "optionally", replacing within by "with", and adding the phrase "or with an aqueous alcohol". The word "optionally" now stands deleted. The choice of an aqueous alcohol in acetic acid stands rejected as new matter. Acetic acid is an acidic medium as taught by Acklin. Thus, there is no issue that has not been previously decided. There is no hint in the written decision affirming the obviousness rejection (Appeal No. 1996-1528, cited in paper 5) that claims can be amended to make them patentable. Examiner, relying on his own reading of Acklin, has made a 102(b) anticipation rejection in addition to an obviousness rejection relying on the Acklin reference.

The court said *In re SZWARC*, 138 USPQ 208 (CCPA 1963) "The first requirement of res judicata is that the second suit must involve the same parties or their privies. *Commissioner v. Sunnen*, 333 U.S. 591, 77 USPQ 29" and "The second requirement of res judicata is identity of issues. If the second action between the same parties or privies is upon the same claim or demand, the judgment in the prior action operates as an absolute bar to relitigation not only of those matters actually determined in the prior suit but also any other matter which might have been acted upon in the prior suit. *Cromwell v. County of Sac*, 94 U.S.

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351. This aspect of the doctrine of res judicata, sometimes called res judicata by bar or merger, differs from the second aspect of res judicata, estoppel by judgment. If the second action is upon a different claim or demand, an estoppel by judgment, more limited in its scope than res judicata by bar, operates as an estoppel only as to those matters upon which a determination or final verdict was actually rendered. *Cromwell v. County of Sac*, supra. Because the distinction between res judicata by bar and estoppel by judgment is often a source of confusion, the definitive statements of the Supreme Court in *Commissioner v. Sunnen*, supra, at pages 597-598, 77 USPQ at 31-32, are here quoted at some length:

"It is first necessary to understand something of the recognized meaning and scope of res judicata, a doctrine judicial in origin. The general rule of res judicata applies to repetitious suits involving the same cause of action. It rests upon considerations of economy of judicial time and public policy favoring the establishment of certainty in legal relations. The rule provides that when a court of competent jurisdiction has entered a final judgment on the merits of a cause of action, the parties to the suit and their privies are thereafter bound "not only as to every matter which was offered and received

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to sustain or defeat the claim or demand, but as to any other admissible matter which might have been offered for that purpose."

In a case factually similar to the current application, *In re Katz*, 167 USPQ 487 (CCPA 1970) the courts have held "Res judicata requires showing of identity of issues presented for adjudication and issues previously decided; claims of continuation application are rejected in view of decision in action under 35 U.S.C. 145, wherein court refused to authorize parent application's claims, since issues considered in such action are same as those raised on appeal from rejection of continuation claims inasmuch as word added to continuation claims has not been shown to mean anything more than what was set forth in specification and claims of parent application; hence, claims considered in 35 U.S.C. 145 had that limitation in issue."

Allowable Subject Matter

6. Claim 6 is rejected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim. Acklin does not teach adding water to the reaction mixture.

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Conclusion

7. Please direct any inquiry concerning this communication or earlier communications from the examiner to Thomas C. McKenzie, Ph. D. whose telephone number is (703) 308-9806. The examiner can normally be reached on 8:30 to 5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund J. Shah can be reached on (703) 308-4716. The fax number for the organization where this application is assigned is (703) 308-4556 for regular communications. Please direct any inquiry of a general nature or any inquiry relating to the status of this application to the receptionist whose telephone number is (703) 308-1235.

TCMcK *TCM*
May 15, 2000

Mont Berer
PRIMARY EXAMINER
MAY 15 2000